7:Lewis S-5 (ca. 1940-45) 1948 MD1 Syria MD1

necessity for health's sake alone, but should be part of a general *mise en valeur* of the region's resources. This is the type of approach which is most likely to succeed, because it is linked with the material interests of the landowners. They will lend their support and active participation if given technical advice, supervision, and material and financial help to defray part of the capital outlay.

Swamps, Floods, and Soil Erosion

Malaria-control measures were taken with a fair degree of success in 20 villages in 1944–1945. Various factors, however, combine to prevent a permanent reduction of the incidence of the disease. Among these are the necessity for constant supervision, the need for repeated cleanings of canals and ditches, and the improvidence of the inhabitants. Most important is the fact that floods will certainly undo much of the work.

Winter floods are frequently heavy enough to destroy or damage seriously the repair and maintenance works, which are of value to agriculture and malaria control alike. Malaria causes debility and apathy among the villagers, and the certainty that floods will recur reinforces this apathy, making everyone disinclined to expend energy and money in work which must be done again in a few years. The canals and watercourses at Moufaggar, for example, have been badly damaged in the past; in fact, damage by floods was the main reason for the modification of the old foggara system. The southern foggara and watercourse are now protected against torrents by a concrete wall at the upper end, but as the system lies in one of the main valleys coming from Jebel Bil'as, it is doubtful whether the device will be a great success. Although the broad, nearly flat valley north of Selemiya has benefited from its wide catchment area—it is built up of alluvium, as much as 10 feet deep—it is partly derelict because floods have created extensive swamps and ruined old foggaras. In 1945–1946 useful drainage work was undertaken here.

The floods are due in part to the occasional sudden and torrential rainstorms, characteristic of this as of other semiarid regions. Wadis are sometimes filled for a few hours with violent, detritus-laden torrents and are then left dry again. The steep slopes and absorptive limestones are contributing factors. English merchants, traveling in 1691, noted[11] that after a heavy rainstorm

> those hollow Gutts which we passed over without the least appearance of Moisture, were, by the Cataracts which descended from the Mountains, become Rivers; . . . the next Morn-

[11] "An Extract of the Journals" (*op. cit.*), p. 144 [Miscellanea Curiosa, pp. 139–140].

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probably few, of the estates are the properties of old, wealthy families of Ottoman times, which still exist in Lebanon, such as the lands belonging to the families of Aralan, Jumblatt, Chehab, Khazen, but many of these have been broken up by the Moslem laws of inheritance. Other estates have originated from direct grants made by Turkish Sultans to influential politicians, as for example the two very large estates in the Beqa and the Litani valley. Others too were formed at the time of the general registration of property undertaken by the Ottoman Government when chiefs of tribes or villages registered tribal land in their names as their private property. Uncertainty about legal title to land gives the educated classes frequent opportunity for ousting peasant owners, and whole villages have come into the possession of rival groups of city notables, as a result of litigation among the villagers who have sought their assistance in establishing their title.

While the land-tenure system is thus a result of peasant poverty, it also perpetuates poverty by standing in the way of any long-term investment. The high percentage of fallow in Syria suggests a great waste of land resources, and there could certainly be some improvement in yields, even in dry land farming, if green crops were introduced more generally into the rotation. But the share-cropper has little incentive to improve the fertility of the land, since he has no certainty of tenure, and since the landlord will take 50 per cent of any increase. Since the landlords are not as a rule directly interested in farming, they do not themselves undertake long-term improvements in the land.

Three case studies illustrate the ways in which the land-tenure system hinders advance.[1]

One study relates to the large estate of Misherfe, near Homs in central Syria. This is 24,000 acres in extent and includes five villages, with 2,500 inhabitants. It is very extensively cultivated, only one-third of the area, 8,000 acres, being cropped each year. The land is divided into three parts, one with wheat, barley or *qatani* (mixed grain), one ploughed but not sown, and one left fallow. A small area, 200 acres only, is irrigated, though water supplies are sufficient to irrigate much larger areas.

[1] These studies, which were prepared for the M.E.S.C., are not at present available in print.